CONFIDENTIAL [redacted] 25X1

[redacted] 8 June 1956 25X1

CONNAVGER [redacted] 25X1

EAST GERMANY/Radio and RDF Research for VP-SEE

ADVANCED REPORT FOR NAVY USE ONLY

As of April 1956 transceivers of varying from 10 watt to 300 watt capacity were in development. An 800 watt transmitter had been ordered. RDF gear and special antennae were also in experimental stages. Most of projects had been ordered by the VP-SEE.

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1. General.

In the field of km radio communications gear, the following sets, were being developed [redacted] 10-watt untra-shortwave voice-radio transceiver, 300-watt untra-shortwave voice-radio transceiver, shortwave receiver, 50-watt transceiver type FK-50, 120-watt transceiver, 300-watt transmitter, 800-watt transmitter, 15-watt distress transceiver, and an 8-meter rod antenna.

2. 10-watt untra-shortwave voice-radio transceiver. 25X1

Designing and developing this set also known as "Gegensprechanlage" had been finished by RFT FUNKWERK at DRESDEN [redacted] in 1956 that plant was scheduled to build 40 to 50 sets. The unit was for shipboard use. It closely resembled below 300-watt set externally. This

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research project was among those ordered and paid for by VP-SEE. DM East 200,000 had been approved for 1956-work on the project.

3. 300-watt MM ultra-shortwave voice-radio transceiver.

Main requirement for this set as set forth by research project was minimum size and a minimum MM weight. Required range was 60 to 80 kilometers, required frequency was 80 to 120 megacycles. The project asked for shipboard and shore sets. Shipboard sets were MM planned to be installed in HABICHT and KRAKE-classes. Shore sets were planned to be installed in radio stations which were to serve as so-called "Leitstellen Land" (probably stations directing VP-SEE craft radio-communications). Designing and developing this set had been finished by RFT FUNKWERK at DRESDEN [redacted] 25X1 [redacted] In 1956, the plant was supposed to build 25 to 30 sets. The research project was ordered and paid for by VP-SEE. DM East 20,000 had been approved for 1956-work on the project. KVP and Air Force had also shown interested in the set. 25X1

4. Shortwave receiver. 25X1

25X1 There were also 1 or 2 shortwave receiver models planned [redacted] the research project was ordered by ANT FUER TECHNIK (see ref. (a)) on behalf of VP-SEE.

5. 50-watt transceiver type FK-50.

Construction of this shipboard set was to begin at RFT FUNKWERK LEIPZIG-PLAGWITZ [redacted] VP-SEE requirements [redacted] 25X1 [redacted] were: Compact unit, shock resistant, and spraywater protected. The 25X1 research project was ordered and paid for by ANT FUER TECHNIK on behalf of VP-SEE. KVP was also interested, but did not submit specific requirements 25X1 for their model.

6. 120-watt (100-watt) transceiver.

This was a shipboard set which VP-SEE had originally ordered as an 100-watt set. It had been designed and developed and was being built by RFT FUNKWERK KOEPENICK. The first 8 sets of x the entire series will be 100-watt models; the first 4 of these were completed by February 1956, the last 4 were expected to be completed by April/MXX May 1956. All further sets of this type will be 120-watt models. Approximate dimensions of the cabinet were: 540 x 400 x 800 millimeters. The set operated with AC and had a capacity of between 400 and 500 watts. The sets were to be installed in HABICHT and KRAKE-classes. HABICHT-class units had so far been x equipped with 300-watt sets which will be removed as they proved too heavy. The research project was ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 160,000 had origin-

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ally been approved for 1956-work on the project. Another DM East 100,000 were approved for development of requested 120-watt model. Development was to be finished in early summer 1956. 25X1

7. 300-watt transmitter.

This set was being designed and developed at HFT FUNKWERK KOEPENICK [redacted] 25X1
A prototype set was scheduled to be ready for testing by 31 December 1956. Requirements [redacted] were: cap- 25X1
pacity to be 2 kva, set to be operated by 380-volt 2-phase alternating current. Approximate measurements of the cabinet were 600 x 500 x 1,770 millimeters. [redacted] the set was for shipboard or shore 25X1
use. The research project was ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 130,000 had been approved for 1956-work on the project.

8. 800-watt transmitter.

Designing and developing this set was underway at HFT FUNKWERK KOEPENICK. A prototype set was scheduled to be ready for testing in the spring of 1957 Requirements [redacted] : capacity to be 3 kva, set to be operated 25X1
by 380-volt 3-phase alternatingcurrent. Approximate measurements of the cabinet were: 600 x 500 x 1,800 millimeters. The set was for a shore station. The research project was ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 100,000 had been approved for 1956-work on the project.

9. 15-watt distress transceiver.

Designing and developing this set had been done by HFT FUNKWERK DABERDORF [redacted] . A first series of 6 prototype sets 25X1
was to be built in 1956. However, they were to be 10-watt models instead of required 15-watt models for reasons unknown [redacted] The set operated 25X1
on the 600-meter frequency only. The research project was ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 85,000 had been approved for 1956-work on the project.

10. Rod antenna.

VP-SEE ship designers intended to have rod antennas instead of conventional antenna arrays installed aboard all new VP-SEE craft, and to have present antenna arrays aboard replaced by new rod antennas. HFT FUNKWERK KOEPENICK was in charge of a rod antenna design and development. Development of the first useable 8-meter model will probably be finished during the summer of 1956. "Fusspunktmessungen" and other tests with a temporary 8-meter antenna had been conducted aboard HABICHT-class craft at WOLGAST in late March 1956. This 8-meter rod antenna was planned x for the new 120-watt (100-watt) transceiver and the new 50-watt transceiver type

FK-50. The research project was ordered and paid for by VP-SEE directly. DM East 80,000 had been approved for 1956-work on the am project.

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11. Direction finding gear under development.

The following gear, was being developed [redacted] direction finder with visual presentation ("Sichtfunkpeiler"), a crossed-loop antenna, and equipment for 2 directional-radio stations ("Richtfunkfeuer").

12. Direction finder with visual presentation ("Sichtfunkpeiler").

Designing and developing this set had begun at HAUTISH-HYDROGRAPHISCHES INSTITUT (HHI) (Berlin) in 1955. After H.H.I. had been dissolved, work was continued by RFT FUNKWERK K KOEPENICK. The Russian Navy had indicated their interest in 1955. At that time, they had an "adviser" permanently stationed at H.H.I. Good progress was made in above work [redacted] VP-SEE ordered 3 prototype sets for use aboard HABICHT-class. When above tests have netted positive results, the Russians want to have 6 sets. Series production is scheduled to begin at RFT FUNKWERK KOEPENICK during the 3rd quarter of 1957. VP-SEE plans on equipping all HABICHT and KRAKE-class craft with above gear. For reasons explained in below paragraph "Crossed-loop antenna", SCHWALBE-class will probably also be equipped with above direction finding gear. The SEE HYDROGRAPHISCHEN DIENST was also interested. [redacted] they may want gear for a planned "northern waters" expedition. The research project was ordered and paid for by VP-SEE. DM East 200,000 had been approved for 1956-work on the project.

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13. Crossed-loop antenna.

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In 1954, SCHWALBE-class craft had been planned to be equipped with direction finding gear of goniometer-type. These sets and the first loop antennas then developed proved too big and too heavy for comparatively small SCHWALBE-class. RFT FUNKWERK K KOEPENICK was then ordered to design and develop a small crossed-loop antenna for small VP-SEE craft. A prototype antenna was almost finished [redacted] After completion, it will be used in further development work. The antenna had no additional rod-antenna. The research project was among the those ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 15,000 had been approved for 1956-work on the project.

14. Equipment for and establishment of 2 "Richtfunkfeuer".

25X1 Two directional-radio stations ("Richtfunkfeuer") were to be established in 1956: one near TIMMENDORF ([redacted] probably the one on POEHL Island) and one near an unidentified place by the name of GOLWITZ.

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The stations were to be operated by VP-SEE personnel. According to hearsay, mission of the 2 stations will be to take radio bearings of ships at sea, [redacted] only these 2 "Richtfunkfeuer" will be established. RFT FUNKWERK KOEPENICK designed and developed masts, antennas, transmitters, and receivers. Either station was to be equipped with 1 transmitter and 5 portable receivers. All of them will be ready for delivery by mid June 1956. GOLNITZ station was scheduled to be established between 1 and 10 July 1956 and TIMMENDORF station between 11 and 20 July 1956. Three RFT FUNKWERK KOEPENICK engineers were selected to direct the establishment of GOLNITZ station. On 21 July 1956, joint tests were scheduled to begin. Either station was to consist of 1 small station building which was to house the transmitter. Construction of the buildings had been scheduled to begin in March 1956. The project was ordered and paid for by ZENTRALAMT FUER FORSCHUNG & ENTWICKLUNG BEI DER STAATLICHEN PLANKOMMISSION on behalf of VP-SEE. DM East 310,000 had been approved for 1956-work on the project.